

We claim:

- 1 1. A method for dispensing a substitute product, comprising:
2 receiving a selection of a first product from a purchaser; and
3 if the first product is not available,
4 retrieving a substitute product identifier corresponding to a
5 substitute product; and
6 offering the substitute product to the purchaser.
- 1 2. The method of claim 1, further comprising:
2 receiving an amount of money from a purchaser.
- 1 3. The method of claim 2, further comprising:
2 detecting the purchaser;
3 measuring a time between a detection and a receipt of the amount of money
4 from the purchaser; and
5 storing a value corresponding to the time.
- 1 4. The method of claim 3, wherein the detecting step is performed by at least
2 one of:
3 a motion detector, an infrared detector, an acoustic signal detector,
4 and a pressure detector.
- 1 5. The method of claim 2, further comprising:
2 measuring a time between a receipt of the amount of money and a receipt
3 of the selection; and
4 storing a value corresponding to the time.
- 1 6. The method of claim 1, further comprising:
2 determining an availability of the first product.
- 1 7. The method of claim 1, further comprising:

2 recording a value corresponding to the selection of the first product.

1 8. The method of claim 7, wherein the value includes one of: a first product
2 identifier corresponding to the first product, a time the first product was selected, a
3 date the first product was selected and an availability of the first product.

1 9. The method of claim 1, further comprising:
2 storing, for the first product, a substitute product identifier corresponding to
3 a substitute product.

1 10. The method of claim 9, wherein the step of storing a substitute product
2 identifier further comprises:
3 measuring a second product demand corresponding to a number of times
4 the second product is selected when the first product is unavailable; and
5 if the second product demand meets a predefined criterion,
6 storing a second product identifier corresponding to the second
7 product as the substitute product identifier.

1 11. The method of claim 10, further comprising:
2 measuring a third product demand corresponding to a number of times a
3 third product is selected when the first product is unavailable.

1 12. The method of claim 11, wherein the predefined criterion comprises a
2 requirement that the second product demand is higher than the third product
3 demand.

1 13. The method of claim 9, further comprising:
2 storing a first expiration date corresponding to the second product;
3 and
4 storing a second expiration date corresponding to a third product,
5 determining whether the first expiration date is earlier than the
6 second expiration date, and if the first expiration date is earlier:

7 storing a second product identifier corresponding to the
8 second product as the substitute product identifier.

1 14. The method of claim 9, wherein the substitute product identifier
2 corresponds to a predetermined product.

1 15. The method of claim 9, further comprising:
2 measuring a demand for each of a plurality of products stored in the
3 dispensing device.

1 16. The method of claim 15, wherein the offering step further comprises:
2 determining a second product demand for the second product, and if the
3 second product demand is higher than the demand for each of the plurality of
4 products:
5 storing a second product identifier corresponding to a second
6 product as the substitute product identifier.

1 17. The method of claim 1, wherein the offering step further comprises:
2 offering the substitute product to the consumer at a discounted price.

1 18. The method of claim 1, further comprising:
2 detecting the purchaser;
3 measuring a time between a detection of the purchaser and a receipt of the
4 selection from the purchaser; and
5 storing a value corresponding to the time.

1 19. The method of claim 18, wherein the detecting step is performed by at least
2 one of:
3 a motion detector, an infrared detector, an acoustic signal detector, and a
4 pressure detector.

1 20. The method of claim 1, further comprising:

2 measuring an average selection time.

1 21. The method of claim 20, further comprising:
2 measuring a demand for each of a plurality of products stored in the
3 dispensing device.

1 22. The method of claim 21, further comprising:
2 determining which of the plurality of products has a highest demand.

1 23. The method of claim 22, further comprising:
2 detecting the purchaser;
3 measuring a time that passes after detecting the purchaser; and
4 if, prior to the receiving step, the time is greater than the average selection
5 time,
6 offering the first product to the purchaser.

1 24. The method of claim 23, wherein the detecting step is performed by at least
2 one of:
3 a motion detector, an infrared detector, an acoustic signal detector, and a
4 pressure detector.

1 25. The method of claim 23, wherein the step of offering the first product to the
2 purchaser further comprises:
3 offering the first product to the purchaser at a discounted price.

1 26. The method of claim 23, wherein the first product has the highest demand.

1 27. The method of claim 23, wherein the first product has the lowest demand.

1 28. The method of claim 23, further comprising:

2 comparing at least a first product expiration date corresponding to
3 the first product and a second product expiration date corresponding to a second
4 product.

1 29. The method of claim 28, wherein the step of offering the first product to the
2 purchaser further comprises:

3 offering the first product to the purchaser if the first product
4 expiration date is earlier than the second product expiration date.

1 30. The method of claim 1, wherein the first product is a service.

1 31. The method of claim 1, wherein the substitute product is a service.

1 32. A method for dispensing a substitute product, comprising:
2 measuring a demand for each of a plurality of products;
3 determining from the demand a substitute product for a first product; and
4 storing, for the first product, a substitute product identifier corresponding to
5 the substitute product.

1 33. The method of claim 32, further comprising:
2 receiving a selection of the first product;
3 determining an availability of the first product; and
4 offering the substitute product if the first product is unavailable.

1 34. The method of claim 33, wherein the step of offering the substitute product
2 further comprises:
3 offering the substitute product at a discounted price.

1 35. The method of claim 32, further comprising:
2 detecting a purchaser;
3 measuring a time between a detection of the purchaser and a receipt of an
4 amount of money from the purchaser; and

5 storing a value corresponding to the measured time.

1 36. The method of claim 35, wherein the detecting step is performed by at least
2 one of:

3 a motion detector, an infrared detector, an acoustic signal detector,
4 and a pressure detector.

1 37. The method of claim 32, further comprising:

2 detecting a purchaser;

3 measuring a time between a detection of the purchaser and a receipt of a
4 selection from the purchaser; and

5 storing a value corresponding to the measured time.

1 38. The method of claim 37, wherein the detecting step is performed by at least
2 one of:

3 a motion detector, an infrared detector, an acoustic signal detector,
4 and a pressure detector.

1 39. The method of claim 32, further comprising:

2 determining an average selection time.

1 40. The method of claim 39, further comprising:

2 determining which of the plurality of products has a highest demand.

1 41. The method of claim 40, further comprising:

2 detecting a purchaser;

3 measuring a time that passes after a detection of the purchaser; and

4 if, prior to the step of receiving a selection, the time is greater than the
5 average selection time,

6 offering the first product to the purchaser.

1 42. The method of claim 41, wherein the detecting step is performed by at least
2 one of:

3 a motion detector, an infrared detector, an acoustic signal detector,
4 and a pressure detector.

1 43. The method of claim 41, wherein the first product has the highest demand.

1 44. The method of claim 41, further comprising:

2 retrieving at least a first product expiration date corresponding to
3 the first product and a second product expiration date corresponding to the second
4 product.

1 45. The method of claim 44, wherein the offering step further comprises:

2 determining whether the first product expiration date is earlier than the
3 second product expiration date, and if the first product expiration date is earlier,
4 offering the first product to the purchaser.

1 46. The method of claim 39, further comprising:

2 determining which of the plurality of products has the lowest demand.

1 47. The method of claim 46, further comprising:

2 detecting a purchaser;
3 measuring a time that passes after a detection of the purchaser; and
4 if, prior to the step of receiving a selection, the time is greater than the
5 average selection time,
6 offering the first product to the purchaser.

1 48. The method of claim 47, wherein the detecting step is performed by at least
2 one of:

3 a motion detector, an infrared detector, an acoustic signal detector, and a
4 pressure detector.

- 1 49. The method of claim 46, wherein the first product has the lowest demand.
- 1 50. The method of claim 49, wherein the offering step further comprises:
2 offering the first product to the purchaser at a discounted price.
- 1 51. The method of claim 32, wherein the first product is a service.
- 1 52. The method of claim 32, wherein the substitute product is a service.
- 1 53. A method for dispensing a substitute product, comprising:
2 determining an average selection time;
3 detecting a purchaser;
4 measuring a time from a detection of the purchaser; and
5 if the time is greater than the average selection time;
6 offering a first product to the purchaser.
- 1 54. The method of claim 53, wherein the detecting step is performed by at least
2 one of:
3 a motion detector, an infrared detector, an acoustic signal detector,
4 and a pressure detector.
- 1 55. The method of claim 53, further comprising:
2 measuring a first product demand corresponding to the first product; and
3 measuring a demand for each of a plurality of remaining products; and
4 comparing the first product demand to the demand for each of the plurality
5 of remaining products.
- 1 56. The method of claim 55, wherein the offering step further comprises:
2 offering the first product to the purchaser if the first product demand is
3 greater than the demand for each of the plurality of remaining products.
- 1 57. The method of claim 55, wherein the offering step further comprises:

2 offering the first product to the purchaser if the first product demand is
3 lower than the demand for each of the plurality of remaining products.

1 58. The method of claim 53, further comprising:
2 storing a first product expiration date corresponding to the first product;
3 and
4 storing at least one expiration date corresponding to each of a plurality of
5 remaining products.

1 59. The method of claim 58, further comprising:
2 offering the first product to the purchaser if the first product expiration date
3 is earlier than the at least one expiration date.

1 60. The method of claim 53, wherein the first product is a predetermined
2 product.

1 61. The method of claim 53, wherein the first product is a service.

1 62. A method for measuring a demand of an unavailable product offered by a
2 dispensing device, comprising:
3 receiving a selection of a product;
4 determining an availability of the product; and
5 if the product is unavailable:
6 storing an indication that the selected product is unavailable.

1 63. The method of claim 62, wherein the product is a service.

1 64. An apparatus for dispensing a substitute product, comprising:
2 means for receiving a selection of a first product from a purchaser;
3 means for retrieving a substitute product identifier corresponding to a
4 substitute product when the first product is not available; and
5 means for offering the substitute product to the purchaser.

1 65. An apparatus for dispensing a substitute product, comprising:
2 a storage device; and
3 a processor connected to the storage device,
4 the storage device storing a program for controlling the processor; and
5 the processor operative with the program to:
6 receive a selection of a first product from a purchaser; and
7 when the first product is not available,
8 retrieve a substitute product identifier corresponding to a substitute
9 product; and
10 offer the substitute product to the purchaser.

1 66. A computer readable medium encoded with processing instructions for
2 implementing by a processor a method for dispensing a substitute product, the
3 method comprising:
4 receiving a selection of a first product from a purchaser; and
5 if the first product is not available,
6 retrieving a substitute product identifier corresponding to a
7 substitute product; and
8 offering the substitute product to the purchaser.

1 67. An apparatus for dispensing a substitute product, comprising:
2 means for measuring a demand for each of a plurality of products;
3 means for determining from the demand a substitute product for a first
4 product; and
5 means for storing, for the first product, a substitute product identifier
6 corresponding to the substitute product.

1 68. An apparatus for dispensing a substitute product, comprising:
2 a storage device; and
3 a processor connected to the storage device,
4 the storage device storing a program for controlling the processor; and
5 the processor operative with the program to:

6 measure a demand for each of a plurality of products;
7 determine from the demand a substitute product for a first product;
8 and
9 store, for the first product, a substitute product identifier
10 corresponding to the substitute product.

1 69. A computer readable medium encoded with processing instructions for
2 implementing by a processor a method for dispensing a substitute product, the
3 method comprising:
4 measuring a demand for each of a plurality of products;
5 determining from the demand a substitute product for a first product; and
6 storing, for the first product, a substitute product identifier corresponding to
7 the substitute product.

1 70. An apparatus for dispensing a substitute product, comprising:
2 means for determining an average selection time;
3 means for detecting a purchaser;
4 means for measuring a time from a detection of the purchaser; and
5 means for offering a first product to the purchaser when the time is greater
6 than the average selection time.

1 71. An apparatus for dispensing a substitute product, comprising:
2 a storage device; and
3 a processor connected to the storage device,
4 the storage device storing a program for controlling the processor; and
5 the processor operative with the program to:
6 determine an average selection time;
7 detect a purchaser;
8 measure a time from a detection of the purchaser; and
9 if the time is greater than the average selection time;
10 offer a first product to the purchaser.

1 72. A computer readable medium encoded with processing instructions for
2 implementing by a processor a method for dispensing a substitute product, the
3 method comprising:

- 4 determining an average selection time;
- 5 detecting a purchaser;
- 6 measuring a time from a detection of the purchaser; and
- 7 if the time is greater than the average selection time;
- 8 offering a first product to the purchaser.

1 73. An apparatus for measuring a demand of an unavailable product offered by
2 a dispensing device, comprising:

- 3 means for receiving a selection of a product;
- 4 means for determining an availability of the product; and
- 5 means for storing an indication that the selected product is unavailable
- 6 when the product is unavailable:

1 74. An apparatus for measuring a demand of an unavailable product offered by
2 a dispensing device, comprising:

- 3 a storage device; and
- 4 a processor connected to the storage device,
- 5 the storage device storing a program for controlling the processor; and
- 6 the processor operative with the program to:
 - 7 receive a selection of a product;
 - 8 determine an availability of the product; and
 - 9 if the product is unavailable:
 - 10 store an indication that the selected product is unavailable.

1 75. A computer readable medium encoded with processing instructions for
2 implementing by a processor a method for measuring a demand of an unavailable
3 product offered by a dispensing device, the method comprising:

- 4 receiving a selection of a product;
- 5 determining an availability of the product; and

- 6 if the product is unavailable:
- 7 storing an indication that the selected product is unavailable.

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